

**STATEMENT OF WORK  
ADDENDUM**

**PILOT STUDY  
AERIAL GAMMA RADIATION SURVEY  
POLK AND HILLSBOROUGH COUNTY, FLORIDA**



**PREPARED BY:**

**US ENVIRONMENTAL PROTECTION AGENCY, REGION 4  
WASTE MANAGEMENT DIVISION  
SUPERFUND REMEDIAL AND TECHNICAL SERVICES BRANCH**

**JUNE 2004**

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**1.0 INTRODUCTION**

This document serves as an Addendum to the Statement of Work (SOW), February 2004, for a "Pilot Study" to aid in the development of a process and the criteria to assess the potential for human exposure to elevated levels of gamma radiation and radon gas to individuals residing in dwellings constructed over formerly mined phosphate lands in Central Florida. Background information used in the development of this SOW is summarized in the *Draft, Florida Phosphate Initiative, Summary of Information, U.S. Environmental Protection Agency, Region 4, Waste Management Division, South Site Management Branch, September 2003*.

This Addendum provides direction to the US Department of Energy (DOE), National Nuclear Security Administration, Nevada Site Office (NNSA/NSO) to provide technical support to the US Environmental Protection Agency (EPA) via an Interagency Agreement (IAG). The February 2004, SOW discusses in detail the background and history, objects, and tasks for this project. This Addendum serves to outline the additional tasks to be performed by DOE and serves as the basis for additional funding.

The following is a discussion of the tasks that are either amended or added to the SOW.

**Task 1 - Summary and Analysis of State Data**

EPA was recently advised by the Florida Department of Health (DOH) that it conducted a radiation monitoring program in the 1970's, 1980's and 1990's whereby it conducted radiation assessments of residential and commercial properties. DOH is of the opinion that this data may be helpful in EPA's radiological assessment plans. The data is stored at the Polk County Health Department.

DOE is tasked with the following:

- Procurement and photo-coping of data;
- Printing of hard-copy of file data;
- Generation of an electronic copy of data to be submitted on a CD;
- Review, Assessment and Summary of Data;
- Generation of a written summary report and map(s) that denotes the survey locations relative to EPA's future survey area;
- Observations regarding the impact this data may have on EPA's radiation survey

- plans;
  - Submittal of 15 copies of the summary report.

## **Task 2 - Completion of Survey Work in Fiscal Year 2005**

It was initially the goal of EPA to implement this work as soon as possible. The SOW was issued in February 2004, and at the direction of EPA, DOE's contractors Bechtel Nevada and Argonne National Laboratory developed the prescribed planning documents and made the necessary logistical arrangements in anticipation of conducting the survey in late-April 2004. The April 2004 date was re-scheduled to May 2004, and eventually to November 2004.

However, several factors have caused EPA to significantly delay the implementation of the survey work. Several important factors included the approach to the development and implementation of the community's involvement, a re-evaluation of the State's involvement; and weather conditions.

In preparing for both the April and May starts, Bechtel Nevada incurred costs associated with preparing and revising the necessary plans, making the necessary logistical arrangements, and preparing to mobilize the necessary equipment and personnel. With the exception of the background and methodology sections of the April 2004 Work Plan, these activities will need to be conducted a third time prior to the implementation of the work in November 2004. In to these costs, travel costs were incurred for three scoping/planning meetings that had not been envisioned in the original budget. A least one additional planning meeting will need to be conducted in preparing for the November 2004 survey.

## **Task 3 - Survey of CERCLIS Sites**

EPA is evaluating the appropriateness of expanding this survey to from residential areas to include phosphate mine related sites currently in CERCLIS. The effort would expand the survey to include 21 phosphate mine related sites in CERCLIS. Its estimated that it would increase the survey area size by an order of magnitude. To aid EPA in this evaluation, DOE is tasked to provide EPA with an analysis of the potential impacts this would have on the current study plans in term of survey size, costs, and schedule. DOE is also tasked with developing a base map that shows both the current survey area and the proposed CERCLIS Sites.

If EPA decides to expand the current survey to include the CERCLIS sites, the SOW will be amended accordingly.

## **Task 4 - Web Site Development**

The purpose of the effort is for DOE to provide specialized technical assistance to the U.S. Environmental Protection Agency (EPA) Region 4 for the design, development, and maintenance of an internet website in support of the community involvement program associated with a

central Florida phosphate mine land investigation.

An integral part of the Florida phosphate mining land survey will be a comprehensive community involvement (CI) program designed to convey information to the general public and various stake holders plus solicit input necessary to conduct the investigation. Because of ANL's experience with this project and past experience with web design, development, and maintenance its requested that ANL provide this support. This SOW will provide maintenance through fiscal year 2005.

#### **4.1 Operation Plan Development and Design Brief Preparation**

A plan of operation describing the intended method of accomplishing the work, including, but not limited to, schedule, anticipated research methods, submittal procedure, design techniques, and final website content deployment and maintenance procedure will be submitted to EPA for review and approval.

A needs assessment will be conducted with EPA to aid in the design and development tasks under this statement of work. This needs assessment will be based on meetings with EPA region 4 staff to discuss the purpose and objectives of the web site, the major functional requirements and development constraints for the site, and prioritized target audience needs. Findings will be incorporated into the design brief, and will be used to develop a site architecture diagram for the Florida phosphate mine land investigation website, and mock-ups of the user interface for the proposed site.

#### **4.2 Information Research and Preparation**

Research will be conducted, as necessary, to professionally enhance, operate and maintain a community involvement website. Under EPA guidance, various sources of information will be consulted in order to complete this task, which may include the following:

- U.S. Environmental Protection Agency
- U.S. Army Corps of Engineers
- State of Florida
- Hillsborough and Polk Counties
- Congressional records
- Scientific publications

#### **4.3 Evaluation and Selection of Website Content and Features**

ANL will develop example materials and present alternative website functions and features to achieve the project's objectives. Review comments received will be incorporated into revised example materials for use in evaluation and selection of final website functions and features.

#### **4.4 Implementation of Website Features and Functions**

Upon review and approval by EPA region 4, ANL will implement the functions and features selected for the community involvement website. These expanded features and functions will be presented in one or more accepted submittal procedures (i.e., color hard copies of the website pages, temporary internet sites, etc.) to allow the review and final approval of the website content.

#### **4.5 Maintenance and Administration of Website**

Upon final review and approval by EPA region 4, ANL will publish the community involvement website for public viewing. ANL will be responsible for providing EPA with electronic copies of all developed files. EPA will post these files on its web site. All files shall be backed up, at a minimum, on a bi-monthly basis. ANL will provide maintenance services for the website through the end of fiscal year 2005.

**COST ESTIMATE  
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**Task 1 -Summary and Analysis of State Data -** [REDACTED]

- Background Review - 40hrs
- Work Plan Prep. - 80hrs
- Site Visit (2 people) - 60hrs
- Support Meetings (2 for 2 people) - 120hrs

**Task 2 -Completion of Survey Work in Fiscal Year 2005** [REDACTED]

- Aerial survey rate: 3840 acres per day at an altitude of 150-feet. Rates are based on two flights per day.
- Deployment Costs: [REDACTED] (Planning, Mobilization/Demobilization of personnel and equipment).
- Daily Field Rate: [REDACTED]
- Survey Cost Estimate at 150-foot altitude: [REDACTED]  
(42,000 acres) x (3840 acres/day) x ([REDACTED]) = [REDACTED]
- Its noted that the discontinuity of the residential areas may decrease the estimated daily survey rate. As part of the WP preparation, NNSA/NSO is tasked with evaluating and proposing a flight pattern that will be optimize the flight time and costs.

**Task 3 -Survey of CERCLIS Sites** [REDACTED]

- Data Reduction and Analysis
- Draft/Final Narrative Report (10 copies hard bound, 1 copy CD)
- Maps of gamma radiation Iso-contours

**Task 4 -Web Site Development -** [REDACTED]

- Web-based Reporting of Data Support
- Community Involvement Support

**Total Estimated Costs - \$750,000**